

PROJECT TITLE : Physical Testing Methods

Period Covered : June 1 - June 30, 1980

Report Written : T. Piko

Report Approved : F. Lopes

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#### PHYSICAL TESTS

The results of May for the collective test on physical measurements were calculated and distributed to the participants (see enclosed table).

#### CIGARETTE COMPRESSIBILITY

- Final prototype of this instrument was tested and approved.
- We received the electronical part for the 10 instruments under construction.
- The delivery for the mechanical part is delayed until end August.

#### PRESSURE DROP AND DILUTION INSTRUMENT EX-PME

A series of 10 instruments has been assembled.

#### MISCELLANEOUS

- 4 RTD - Dilution instruments were despatched to the Italian Tobacco Manufacture.
- 1 RTD - Dilution instrument was despatched to Papastratos Cigarette Mfg. Co.
- 3 measuring heads for paper porosity were despatched to Papier Fabrik Wattens.
- 1 complete instrument for paper porosity measurement was despatched to Cartiere del Maglio e di Brodano.

QC - METHODS

T. Piko

11.07.1980 THP/mat

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		1979					1980						$\bar{x}^3$
		A	S	O	N	D	J	F	M	A	M	J	
PM-BERLIN													
C.C.	$\bar{x}$	3.29	3.14	2.96	3.01	3.29	3.20	2.99	3.06	3.20	2.87		3.04
	$s$	0.07	0.07	0.29	0.25	0.11	0.32	0.31	0.16	0.11	0.18		
O.V.	$\bar{x}$	11.3	11.2	11.2	11.2	11.2	11.4	11.3	11.2	11.4	11.0		11.2
	$s$	0.43	0.17	0.10	0.39	0.10	0.18	0.13	0.38	0.21	0.32		
RTD	$\bar{x}$	92.5	90.8	99.0	90.6	91.4	95.0	90.7	101.3	91.9	88.9		94.0
	$s$	2.11	4.27	9.45	0.62	1.64	8.95	2.08	5.89	0.97	1.81		
DIL.	$\bar{x}$	18.9	17.5	18.6	18.8	18.5	19.2	18.7	18.7	18.8	18.4		18.6
	$s$	0.29	1.56	0.35	0.26	0.29	0.46	0.37	0.19	0.13	0.19		
PM-MUNICH													
C.C.	$\bar{x}$	----	2.76	2.81	3.20	3.07	3.25	3.17	3.18	3.15	3.02		3.12
	$s$	----	0.30	0.19	0.17	0.06	0.21	0.09	0.13	0.12	0.12		
O.V.	$\bar{x}$	----	11.1	11.4	10.8	11.0	11.2	11.0	10.87	10.7	10.8		10.9
	$s$	----	0.26	0.29	0.29	0.30	0.31	0.41	0.13	0.41	0.40		
RTD	$\bar{x}$	----	92.6	92.4	91.6	91.3	92.7	91.6	92.8	92.5	91.6		92.3
	$s$	----	0.28	1.01	1.51	2.86	0.93	0.76	0.30	0.60	1.41		
DIL.	$\bar{x}$	----	19.6	20.1	20.0	20.7	20.2	19.8	20.0	20.1	19.9		20.0
	$s$	----	0.33	1.24	0.10	1.48	0.37	0.40	0.29	0.06	0.29		
WELTAB													
C.C.	$\bar{x}$	----	3.25	3.31	3.11	----	3.15	3.07	3.21	3.23	3.33		3.26
	$s$	----	0.09	0.05	0.08	----	0.04	0.35	0.09	0.03	0.19		
O.V.	$\bar{x}$	----	11.0	11.2	11.1	----	11.1	11.5	11.8	11.3	11.4		11.5
	$s$	----	0.29	0.05	0.17	----	0.15	0.68	0.44	0.38	0.57		
RTD	$\bar{x}$	----	87.8	88.5	86.7	----	86.0	85.4	85.6	87.6	87.9		87.0
	$s$	----	0.93	2.70	0.72	----	3.17	2.19	11.25	3.56	3.86		
DIL.	$\bar{x}$	----	20.3	19.6	19.0	----	19.7	19.1	18.2	18.4	18.6		18.4
	$s$	----	1.15	0.47	0.46	----	0.30	0.51	0.56	0.52	0.70		
PM-HOLLAND													
C.C.	$\bar{x}$	----	3.42	3.14	3.42	3.44	3.14	3.04	3.14	3.01	3.19		3.11
	$s$	----	0.23	0.24	0.23	0.14	0.17	0.12	0.14	0.31	0.10		
O.V.	$\bar{x}$	----	11.2	10.7	11.2	11.2	11.1	10.6	11.4	10.8	11.1		11.1
	$s$	----	0.36	0.54	0.45	0.46	0.62	0.28	0.16	0.82	0.46		
RTD	$\bar{x}$	----	91.3	91.0	90.3	90.0	88.7	89.0	88.5	88.0	89.3		88.6
	$s$	----	1.50	1.63	2.63	3.16	3.50	0.82	1.73	1.15	2.63		
DIL.	$\bar{x}$	----	18.0	18.5	18.4	18.4	17.7	18.0	18.5	19.0	19.7		19.1
	$s$	----	0.58	0.83	0.47	0.85	0.94	0.34	0.47	0.34	1.25		
QC-F.T.P.													
C.C.	$\bar{x}$	3.22	3.23	3.26	3.26	3.37	3.21	3.33	3.47	3.26	3.21		3.31
	$s$	0.16	0.27	0.05	0.16	0.10	0.16	0.18	0.14	0.16	0.08		
O.V.	$\bar{x}$	11.2	10.9	11.5	11.3	11.3	11.4	11.7	12.2	11.5	11.8		11.9
	$s$	0.35	0.78	0.30	0.41	0.16	0.12	0.32	0.20	0.19	0.45		
RTD	$\bar{x}$	87.1	89.8	86.8	88.9	84.3	84.8	84.4	84.9	86.6	86.8		85.1
	$s$	3.48	1.01	3.19	2.81	4.17	2.54	2.99	5.24	4.32	4.13		
DIL.	$\bar{x}$	17.2	18.7	17.5	18.7	18.7	18.9	18.3	16.8	18.9	18.6		18.1
	$s$	0.41	0.91	1.26	0.75	0.96	1.06	2.46	1.79	0.58	0.92		
QC-PHE													
C.C.	$\bar{x}$	3.37	3.41	3.58	3.48	3.58	3.56	3.52	3.45	3.11	3.36		3.31
	$s$	0.23	0.11	0.13	0.14	0.14	0.12	0.19	0.08	0.08	0.13		
O.V.	$\bar{x}$	11.5	11.3	11.6	11.5	11.7	11.7	11.9	11.8	11.3	12.0		11.7
	$s$	0.62	0.31	0.42	0.29	0.30	0.19	0.36	0.31	0.20	0.49		
RTD	$\bar{x}$	84.0	82.0	83.8	84.3	90.5	88.8	88.8	89.5	91.0	90.0		90.2
	$s$	11.83	1.63	11.26	2.22	1.00	1.26	0.96	1.73	1.41	3.74		
DIL.	$\bar{x}$	19.0	18.2	19.5	18.8	20.3	19.3	19.0	19.5	19.0	18.0		18.3
	$s$	0.82	0.50	1.00	0.96	0.50	0.50	0.00	0.58	1.41	1.41		

$\bar{X}^3$ : Average of the last three months

c.c.: cigarette compressibility

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